

Water Resources Program Application for Change/Transfer Decision to Withdraw a Record of Decision and Report of Examination 2009

Date	e Star	np	
ed by:			

WATER CONSERVANCY BOARD: Lewis County Water Conservancy Board

Applicant: City of Centralia

Application Number: LEWI 1301, LEWI 1302, LEWI 1303, LEWI 1304 and LEWI 1305

The Lewis County Water Conservancy Board hereby withdraws the Record of Decision and the Report of Examination for the entitled water right transfer issued on November 21, 2013 in accordance with the accompanying resolution of the board and submits this resolution to the Department of Ecology.

It is understood that with the concurrence of Ecology to this withdrawal, that the decision review period provided by RCW 90.80.080 for Ecology review of the previous decision of the board is terminated without prejudice. No

board decision regarding the titled application for change/transfer is before Ecology for review. Signed: Approve Deny Abstain Robert Thode, Chair Lewis County Water Conservancy Board Recuse Other Approve Deny Barbara Burres, Commissioner Abstain Lewis County Water Conservancy Board Recuse Other Approve Deny John Moerke Abstain Lewis County Water Conservancy Board Recuse Other

RECEIVED

Approve

JAN 3 1 2014

WA State Department of Ecology (SWRO)

Mailed to the Department of Ecology SWRO Regional Office of Ecology, via certified mail, and other interested parties on (date mailed).



Applicant: City of Centralia

Lewis County WATER CONSERVANCY BOARD Application for Change/Transfer Record of Decision

Application Number: LEWI-13-04

For Ecology Use Only	
Received: 11-22-13	
Date Stamp	
Daviawad by	
Reviewed by:	

Deny

Approval: The Lewis County Water Conservancy Board hereby grants conditional approval for the water right transfer described and conditioned within the report of examination on //-2/-/3 and submits this record of decision and report of examination to the Department of Ecology for final review.

Denial: The (board name) Water Conservancy Board hereby denies conditional approval for the water right transfer as

Barbara Burres, Commissioner

Lewis County Water Conservancy Board

Abstain
Recuse
Other

Approve
Deny
(Name), (Title)

(Board Name) Water Conservancy Board

Other

Approve
Deny
Recuse
Other

Mailed to the Department of Ecology Southwest Regional Office of Ecology, and other interested parties on

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Lewis County



VATER CONSERVANCY BOARD

Application for Change/Transfer

OF A RIGHT TO THE BENEFICIAL USE OF THE PUBLIC WATERS OF THE STATE OF WASHINGTON

	Surface Water			Ground W			
April 18, 2013		n, permit, certificate,	MENT NUMBER (i.e., etc.)	May 19, 19		NUMBE	ASSIGNED CHANGE APPLICATION R VI-13-04
NAME City of Centralia							
ADDRESS (STREET) 1100 N. Tower Avenue				(STATE) WA			(ZIP CODE) 98531
Changes Proposed:	Change pur	pose	Add purpose	Add irr	igated acres	Change po	oint of diversion/withdrawal
Add point of d	iversion/withda	rawal 🛚	Change place of	use 🗌 Ot	her (Tempora	ry, Trust, Interti	es, etc.)
EPA							
	rovisions of the St		ntal Policy Act of 197	1, Chapter 43.21 Not exempt	C RCW and the	SEPA rules, chapte	er 197-11 WAC and has determined
	В	ACKGR	OUND AND	DECISIO	N SUMM	ARY	
		Existir	ng Right (Te	entative D	etermina	ation)	
MAXIMUM CUB FT/ SECOND 1	MAXIMUM GAL/MIN		MUM ACRE-FT/YR Decified	TYPE OF USE, PE			
SOURCE Chehalis River				TRIBUTARY OF (Pacific Oce	IF SURFACE WATE	(R)	
AT A POINT LOCATED: PARCEL NO.	1/4	1/4	SECTION	TOWNSHIP N.	RANGE	WRIA	COUNTY.
023771001002		NW	26	15	3 W.	23	Lewis
LEGAL DESCRIPTION OF P	ROPERTY ON W	HICH WATER I	S USED	7 7 34 34 3			
Lot 1 and the North ½	of Lot 2, Sect	ion 26, T. 15	5, R. 3 W.W.M.				
PARCEL NO.	la la	1/4		SECTION	TOW	NSHIP N.	RANGE,
					15		3 W
			Prop	osed Use			
	MAXIMUM GAL/MIN	MENTAL STATE OF THE STATE OF TH	AXIMUM ACRE-FT/YR	TYPE OF USE	, PERIOD OF USE		
SOURCE	270	12	25.20		of 60 acres	ATER)	
Well (Pratley Well)				N/A			
AT A POINT LOCATED: PARCEL NO.	1/4	1/4	SECTION	TOWNSHIP N	RANGE	WRIA	COUNTY.
023771001002	NE	SW	26	15	3W	23	Lewis
LEGAL DESCRIPTION OF P	ROPERTY ON WI	HICH WATER I	S TO BE USED				
2; thence south on the 6 2, 30 feet; thence north boundary of said Gover	east boundary of and parallel we rnment Lot 2 to dovernment Lo	of said Gove with the east loo the Chehal of 2; thence e	rnment Lot 2, 80 coundary line of s is River; thence n ast along the nort	rods; thence said Government orthwesterly houndary li	west on the so ent Lot 2, 40 along the eas ne of said Go	outh boundary leads; thence we thank of said Covernment Lot 2	rner of said Government Lot ine of said Government Lot est parallel with the north Chehalis River to the north to the place of beginning,
	f of the north h heast corner or	alf of the no	rth half of said no alf of the north ha	ortheast quarte	er. EXCEPT	ALSO the follo	County, Washington. wing: Beginning at a point 6 feet; thence north 108 feet
ALSO the southwest qu Fownship 15 North, Ra					theast quarter	r of the northea	st quarter of Section 26,
ALSO Government Lo	ts 3 and 4, Sec	tion 26, Tow	nship 15, North,	Range 3 Wes	t, W.M., Lew	vis County, Was	shington.
follow: Beginning at a clot 2; thence north 40	point on the so rods parallel w le Chehalis Riv	outh line of saith the east lever; thence so	aid Government I ine of said Gover outheasterly alon	Lot 2 which is nment Lot 2;	30 feet west thence west p	of the southeas parallel with the	ty, Washington, described a st corner of said Government north line of said ne of said Government Lot 2
ALSO in Thurston Co	inty the S 1/2 S	W 1/4 Section	on 23 T 15 D	3 W W M 155	ng east of the	Chehalia Divo	r
PARCEL NO.		3 W 74, Secur	лі 23, 1. 13., К ., .	SECTION SECTION	T	OWNSHIP N.	RANGE,
				THE RESERVE OF THE PARTY OF THE			

Board's Decision on the Application

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

MAXIMUM CUB FT/ SECOND MAXIMUM GAL/MINUTE MAXI				CRE-FT/YR	TYPE OF USE, PERIOD OF USE				
	270	125.20		Irrigation of 60 acres					
SOURCE					TRIBUTARY OF	IF SURFACE WAT	TER)		
Well (Pratley Well)									
AT A POINT LOCATED: PARCEL NO. 023771001002	½ NE	1/4 SW		section	TOWNSHIP N.	RANGE 3W	WRIA 23	COUNTY. Thurston	

Government Lot I and that portion of Government Lot 2, described as follows: Beginning at the northeast corner of said Government Lot 2; thence south on the east boundary of said Government Lot 2, 80 rods; thence west on the south boundary line of said Government Lot 2, 30 feet; thence north and parallel with the east boundary line of said Government Lot 2, 40 rods; thence west parallel with the north boundary of said Government Lot 2 to the Chehalis River; thence northwesterly along the east bank of said Chehalis River to the north boundary line of said Government Lot 2; thence east along the north boundary line of said Government Lot 2 to the place of beginning, ALL being in Section 26, Township 15 North, Range 3 West, W.M., Lewis County, Washington.

ALSO the north half of the northeast quarter of Section 26, Township 15 North, Range 3 West, W.M., Lewis County, Washington. EXCEPT the north half of the north half of said northeast quarter. EXCEPT ALSO the following: Beginning at a point 30 feet west of the southeast corner of the north half of the north half of the northeast quarter; thence west 306 feet; thence north 108 feet; thence east 306 feet; thence south 108 feet to the place of beginning.

ALSO the southwest quarter of the northeast quarter and the west half of the southeast quarter of the northeast quarter of Section 26, Township 15 North, Range 3 West, W.M., Lewis County, Washington

ALSO Government Lots 3 and 4, Section 26, Township 15, North, Range 3 West, W.M., Lewis County, Washington.

ALSO that portion of Government Lot 2, Section 26, Township 15 North, Range 3 West, W.M., Lewis County, Washington, described as follow: Beginning at a point on the south line of said Government Lot 2 which is 30 feet west of the southeast corner of said Government Lot 2; thence north 40 rods parallel with the east line of said Government Lot 2; thence west parallel with the north line of said Government Lot 2 to the Chehalis River; thence southeasterly along the east bank of said river to the south line of said Government Lot 2; thence east along said south line to the point of beginning.

ALSO in Thurston County, the S ½ SW ¼, Section 23, T. 15., R., 3 W.W.M. lying east of the Chehalis River

TIESO III THOUGH	1250 in Thatstein County, the 5 /2 5 w /4, 500tion 25, 1. 15., 16., 5 w. w.ivi. Tylig oust of the Chondis fever										
PARCEL NO.	1/4	1/4	SECTION	TOWNSHIP N.	RANGE,						
				15	3W						

SCRIPTION OF PROPOSED WORKS

New POW is referred to as the Pratley Well approximately 60 feet in depth

	DEVELOPMENT SCH	EDULE
BEGIN PROJECT BY THIS DATE:	COMPLETE PROJECT BY THIS DATE:	COMPLETE CHANGE AND PUT WATER TO FULL USE BY THIS DATE:
Started	Completed	In Use

REPORT

BACKGROUND

On April 18, 2013, the City of Centralia (Centralia) filed five Applications for Change of Water Rights to change the points of withdrawal\diversion of several water rights and modify the place of use to reflect the current configuration of the irrigated property. This Report of Examination will address Surface Water Certificate 2324. The application was accepted at an open public meeting of the Lewis County Water Conservancy Board ("Board") on April 18, 2013, and assigned application number LEWI-13-04.

Below are all five Applications for Change with corresponding WCB numbers.

Water Right Number	Original Water Right Holder	Lewis County WCB Number		
535-D	Ticknor	LEWI-13-01		
536-D	Ticknor	LEWI-13-02		
2144	Mott	LEWI-13-03		
2324	Ticknor	LEWI-13-04		
G2-21004	Walsh	LEWI-13-05		

Exhibit "A" is a copy of the Application for Change No. LEWI-13-04, and **Exhibit "B"** is a copy of Surface Water Certificate 2324.

Table 1 - Attributes of the water right as currently documented

Name on certificate:	R.B. Ticknor
Water right document number:	2324
As modified by certificate of change number:	N/A
Priority date, first use:	May 19,1939
Water quantities:	Qi: 0.6 cfs Qa: Unspecified
Source:	Chehalis River
Point of diversion/withdrawal:	NW of Section 26, T. 15 N., R. 3 W.W.M.
Purpose of use:	Irrigation of 60 acres
Period of use:	Unspecified, but assumed during irrigation season - as needed.
Place of use:	Lot 1 and the North ½ of Lot 2 Section 26, T. 15, R. 3 W.W.M.

Tentative determination of the water right

The tentative determination is provided on the second page of this report.

History of water use

Discussed in Report of Examination

Current Use

Discussed in Report of Examination

Previous changes

N/A

SEPA

The Board has reviewed the proposed project in its entirety. The governmental action relating to the subject application is exempt from the "detailed statement" preparation requirements of SEPA (WAC 197-11-800(4).

A water right application or if applicable an *Application for Change of Water Rights* is subject to a SEPA threshold determination (i.e., an evaluation whether there are likely to be significant adverse environmental impacts) if any one of the following conditions are met.

040-106(0208)

- It is a surface water right application for more than 1 cubic feet per second, unless that project is for agricultural irrigation, in which case the threshold is increased to 50 cubic feet per second, so long as that irrigation project will not receive public subsidies;
- It is a groundwater right application for more than 2,250 gpm
- It is an application that, in combination with other water right applications for the same project, collectively exceed the amounts above;
- It is a part of a larger proposal that is subject to SEPA for other reasons (e.g., the need to obtain other permits that are not exempt from SEPA);
- It is part of a series of exempt actions that, together, trigger the need to do a threshold determination, as defined under WAC 197-11-305.

None of these situations applied to this application.

Other

Chapter 90.44 RCW authorizes the appropriation of public water for beneficial use and describes the process for obtaining water rights including the process to amend or change existing rights. Laws specifically governing the water right permitting process are RCW 90.03.250 through 90.03.340 and RCW 90.44.060. Changes or amendments to these rights are covered under RCW 90.03.380 and RCW 90.44.100.

COMMENT AND PROTESTS

Public notice of the application was given in the Chronicle on April 25^{th} , and May 2^{nd} , 2013. The protest period ended on June 2^{nd} with an extended opportunity for public discuss during the review process.

Since the intent of these filings is to modify the place of use to allow for irrigation in both Thurston and Lewis Counties a public meeting was also held at a Thurston County venue on July 15, 2013, specifically the regular meeting of the Thurston County Water Conservancy Board.

"Exhibit C" is the Affidavit of Publication.

INVESTIGATION

The following information was obtained from:

- A site inspection conducted by Commissioners Barbara Burres and Bob Thode on July 18, 2013. The group was accompanied by Jim Webb farm manager for the City of Centralia, and Jill Van Hulle of Pacific Groundwater Group.
- Technical reports such as Drost, B.W., Ely, D.M., and Lum, II, W.E., 1999. "Conceptual Model and Numerical Simulation of the Ground-Water-Flow System in the Unconsolidated Sediments of Thurston County, Washington". U.S. Geological Survey WRI 99-4165
- · Research of Ecology records including water rights, well construction logs and other hydrogeologic information and,
- Conversations with the applicant specifically Public Works Director Kahle Jennings and Farm Manager Jim Webb.
- Additional technical information provided to the WCB, in a March 18, 2013 memo from Dawn Chapel, LHG entitled Hydrogeological Assessment of Flying T Property.

Project Description

The project site is known as the City of Centralia's Flying T property. The project site encompasses about 300 acres and is located at 1101 Goodrich Road, northwest of the City of Centralia, in Sections 23 and 26, Township 15 N., Range 3 E.W.M. The Chehalis River forms the western boundary of the site, and the farm project is mostly located in Lewis County with a smaller portion situated in Thurston County.

This property is currently occupied by the City's wastewater treatment facility, but prior to 2003, was operated as the Flying T Ranch. The property has been in continuous agricultural production for nearly 100 years, and numerous crop types have been produced. While the WWTP facility has displaced some of the original fields, most of the property remains in active farm production. While none of these water rights have ever been officially modified water use on the property has changed. While once managed as at least 4 separate farms these properties were combined in the mid-1980's under the ownership of Maxwell Baxter. Over time, the use of some of the originally designated wells and diversions have been discontinued, and the sources have been shifted to other wells.

Four main wells that are currently used to irrigate this property. These wells are referred to by City staff as the Walsh, Pratley, Peterson, and Treatment Plant Area wells. The City's intent is to modify their water rights to better align with the current wells. No rights are being transferred from the farm property.

The City wishes to make changes to these water rights as follows:

- 1. Surface Water Certificates 2324 (Priority Date May 19, 1939) authorizes the withdrawal of 0.6 cfs from the Chehalis River, with an unspecified annual quantity for the irrigation of 60 acres. The City wishes to change the diversion point from the Chehalis River to the nearby Pratley well, and modify the place of use to allow for irrigation of the entire property.
- 2. Surface Water Certificates 2144 (Priority Date November 30, 1938) authorizes the withdrawal of 0.4 cfs from the Chehalis River, with an unspecified annual quantity for the irrigation of 40 acres. The City wishes to change the diversion point from the Chehalis River to the nearby Pratley well, and modify the place of use to allow for irrigation of the entire property.
- 3. Ground Water Certificate 535-D- (Priority Date July 1943) authorizes the withdrawal of 128 gpm and 80 ac-ft/yr for the irrigation of 40 acres. The original point of withdrawal referred to as Dug Well 1, is no longer used and believed to be located somewhere under the footprint of the WWTP. The City wishes to change the point of withdrawal to the Walsh Well and modify the place of use to allow for irrigation of the entire property.
- 4. Ground Water Certificate 536-D (Priority Date 1943) authorizes the withdrawal of 128 gpm and 50 ac-ft/yr for the irrigation of 25 acres. The original point of withdrawal referred to as Dug Well 2, is no longer used and believed to be located somewhere under the footprint of the WWTP. The City wishes to change the point of withdrawal to the Peterson Well and modify the place of use to allow for irrigation of the entire property.
- 5. Ground Water Certificate G2-21004 (Priority date of May 2, 1973) authorizes the withdrawal of 500 gpm, and 124 ac-ft/yr for the irrigation of 62 acres from the Walsh Well. The City wishes to modify the place of use to allow for irrigation of entire property.

Other water rights appurtenant to the property (if applicable)

The City of Centralia holds multiple water right authorizations for the irrigation of this property but has elected to only modify five of the water right documents. The remainder of these rights are either useable as issued or not needed due to redundancy with other water rights.

On paper the rights, including the rights not under a change application, allow for a combined withdrawal rate of 1,956 gpm; however, 1 cfs (449 gpm) of that is specific to the Chehalis River and the balance of 1,507 gpm is from the wells. The additive\non-additive nature of the water rights makes it difficult to assess these amounts accurately; but after our review it appears that the City holds rights to approximately 1,700 gpm and 578.7 ac-ft/yr for the irrigation of approximately 290 acres. **Table 2** lists all the water rights appurtenant to the project based on a review of Ecology's records.

Table 2 Flying T Water Rights

File #	Cert #	Person	Туре	Date	Purpose	Qi	Qa	Ir Acres
S2-*04687CWRIS	2144	MOTT H	Cert	11/30/1938	IR	0.4 cfs		40
S2-*04845CWRIS	2324	TICKNOR R B	Cert	5/19/1939	IR	0.6 cfs		60
G2-20927CWRIS	G2-20927C	TICKNOR R C	Cert	4/12/1973	IR	500 gpm	176	88
G2-*08766CWRIS	6282	TICKNOR R C	Cert	5/23/1967	IR	500 gpm	200	150
G2-*02019CWRIS	1156	WATSON F H	Cert	6/29/1951	IR,DS	200 gpm	30	20
G2-*02409CWRIS	1219	GORZELANCYK S	Cert	3/24/1952	IR	200 gpm	40	20
G2-*00684SWRIS	535-D	TICKNOR R B	Cert	7/1/1938	IR	128 gpm	80	40
G2-*00685SWRIS	536-D	TICKNOR R B	Cert	1/1/1943	IR	128gpm	50	25
G2-23930CWRIS	G2-23930C	GRILL GERALD D	Cert	8/20/1975	IR,DS	50 gpm	11	5
G2-21004CWRIS	G2-21004C	WALSH LEO & BEVERLY	Cert	5/2/1973	IR	500 gpm	124	62

As previously noted not all of the Flying T rights are being modified by the City through the application for change process however Ecology may wish to pursue revisions to these rights at some point in the future with the City of Centralia's support. The rights are discussed below with our proposed recommendations as follows:

Ground Water Certificate 1219 was issued to S.J. Gorzelancyk. The certificate authorizes the withdrawal of 200 gpm and 40 ac-ft/yr for the irrigation of 20 acres. The place-of-use is described as the: The W ½ of SE ¼ of the NE ¼ of Section 26, T. 15, R. 3 W.W.M. We note that the authorized place of use is divided into two portions – the City's portion is 5 acres and covers a portion that is already covered by certificates 2144 and 2324 in the South Pratley Field. The remaining 15-acre portion covers a field that is owned by National Frozen Foods and located southeast from the WWTP. The well authorized by this certificate is described as a 6-inch casing drilled to 37 feet and was located on property owned by National Frozen Foods. The City does not own this source, and the portion of the rights associated with the place of use owned by the City are redundant to other rights. We suggest this right be partially relinquished or possibly divided between other property owners.

Certificate G2-20927 was issued under the name of R.C. Ticknor, and authorizes the diversion of 500 gpm and 176 acre-feet from a well for the irrigation of 86 acres. The well authorized by this certificate is no longer in use and is believed to have been abandoned when the WWTP was constructed. The right is issued as a non-additive right to four previously issued certificates and authorizes no withdrawals beyond those already authorized by certificates 535, 1156, 1219, and 5903.

The place-of-use is described as the: SW ¼ NE ¼, the W ½, SE ¼, NE ¼, and the west 990 feet of the NE ¼ SE ¼, all in Section 26, T. 15 N., R. 2 W.W.M.. This area covers the central portion of the property primarily the WWTP footprint and the West Field, as well as 20 acres that are situated to the south on adjoining parcel 023782001003, which is owned by National Frozen Foods. For the purposes of determining the extent of the City's water rights, we have assumed that this right does not authorize the irrigation of additional acres and is redundant to other rights held by the City. The authorized POW for

this water right was located within the footprint of the WWTP and is believed to be abandoned. The well is described as a 12-inch casing drilled to a depth of approximately 60 feet. We suggest this right be partially relinquished or possibly divided between other property owners.

<u>Certificate 6282-A</u> was issued to R. C. Ticknor and authorizes the withdrawal of 500 gpm and 200 ac-ft/yr for the irrigation of 150 acres. This right corresponds to the Peterson Well and was issued as partially non-additive to two previous issued water rights -- 536-D (Ticknor) and 8439-A (issued to the Fannie Warner Estate). This certificate was issued with the provision that it not 200 acre-feet, "less amounts withdrawn under the other rights."

Because the Report of Examination was specific to previously issued rights 536-D and 8439-A, and those two certificates already allowed for the withdrawal of 125 ac-ft/yr, we assume a primary\additive value of 75 acre-feet and a non-additive value of 125 acre-feet. As previously noted the well designated by 536-D is no longer in use, so it is assumed that the annual quantities associated with that right (50 acre-feet) are being withdrawn from the Peterson well.

The place of use for this right is extensive and covers 700 acres and includes property in multiple sections, however, it allows for the irrigation of only 125 acres. The portion that is appurtenant to property owned by the City is located in the north half of Section 26 and covers the North Pratley, West, Stump, and Peterson Fields as well as the WWTP footprint. Since the point of withdrawal of this right is consistent with a well that the City owns and operates and the place of use includes property that is owned by the City we see no need to formally change this water right. We do however note that place of use associated with right cover over 700 acres —not all of which is owned by the City. For the purposes of assessing the extent of the City's rights we assume that 75 acre-feet considered to be "Additive" or "Primary" would be adequate to irrigate 38 acres.

Evaluation

For the purposes of assessing the extent of the City's Flying T water rights we have assumed that certificates 1219 and G2-20927 are redundant or no longer associated with property owned by the City, and they have been omitted from Table 3, which shows our interpretation on the Flying T water rights. With the approval of the City's five *Applications for Change of Water Rights* we suggest that the Flying T water right portfolio will be as follows:

Table 3 – Revised Flying T Water Rights

Cert #	Person	Type	Date	Purpose	Q	i	Qa	1	Ir Acres	Well
					Additive	Non-Add	Additive	Non- Add		
2144	City of Centralia	Superseding Certificate	11/30/1938	IR	180 gpm		83.5		40	Pratley Well
2324	City of Centralia	Superseding Certificate	5/19/1939	IR	270 gpm		125.20		60	Pratley Well
6282	Ticknor R C	Cert	5/23/1967	IR	500 gpm		75	125	38	Peterson Well
1156	Watson F H	Cert	6/29/1951	IR,DS	200 gpm		30		20	Treatment Plant Well
535-D	City of Centralia	Superseding Certificate	7/1/1938	IR		128 gpm	80		40	Walsh Well
536-D	City of Centralia	Superseding Certificate	1/1/1943	IR		128 gpm	50		25	Peterson Well
G2-23930C	Grill Gerald D	Cert	8/20/1975	IR,DS	50 gpm		11		5	Grill Well
G2-21004C	City of Centralia	Superseding Certificate	5/2/1973	IR	500 gpm		124		62	Walsh Well
					1,700 gpm		578.7		290	

Consistency with Place of Use

We note that of the approximately 304 acres owned by the City, all but 20 acres are described in the place of use by one or more of the certificates. This 20-acre portion encompasses the northernmost part of the Stump and Peterson Fields and we can find no explanation as to why water rights have been excluded from this particular portion of the property. The City assumed that all the Flying T property was covered by water rights, and to the best of City staff's knowledge the property has always been irrigated. In filing this change the City is requesting that a single place of use be established that encompasses all currently irrigated areas – include the 20 acres that was previously not covered. We note however that this does not consistute an expansion of water rights because while the authorized place of use describes approximately 304 acres the rights are still limited to something less – we have estimated that to be 290 acres of irrigation. The City may irrigate anywhere within the new place of use provided that the total number of acres does not exceed 290 acres during any season.

Effects to Other Water Rights/Claims

The State Department of Ecology's Water Rights Application Tracking (WRATS) database was queried to identify other existing ground water rights (certificates, permits and claims) situated near the Flying T site. "Exhibit D" shows that nearly 170 records on file within the 4 square miles encompassing and surrounding the Flying T property. Many of these documents were filed as claims for general domestic purposes, but numerous water rights and claims represent irrigation purposes which are consistent with the land use patterns on the area.

Table 3 below details water rights within a smaller, approximately ½ mile radius of the new point of withdrawal associated with this transfer which is the existing Pratley Well located in Section 26. There are no other water rights are appurtenant to this well.

Table 3 - Water Rights Application Tracking - ½ Mile Radius of Proposed Prately Wellsite

File#	Cert.	Name	Date	Purpose	GPM	Qa	# Acres	County	TRS	QQ/Q
G2-*01425C	730	SORENSEN E M	3/21/1950	IR	150	75	50	THURSTON	15N 3W 23	S2/SE
G2-*01067C	965	SORENSEN E M	1/1/1940	IR	150	75	50	THURSTON	15N 3W 23	S2/SE
G2-26306C		HANCOCK CAROLYN	3/11/1983	DM	60	4.5		THURSTON	15N 3W 24	SW/NW
G2-24370C		ZUBER DAVID E	12/29/1976	DM	60	3		THURSTON	15N 3W 24	NE/SW
G2-21076C		ZUBER DAVID F	5/29/1973	IR,DM	60	8	3	THURSTON	15N 3W 24	NE/SW
G2-21477C		BRANDT KENNETH	9/25/1973	IR,DS	260	53	26	THURSTON	15N 3W 24	SW/SE
G2-*06739C	5178	ZUBER D F / J L	5/31/1963	ST,IR	55	14.6	4.5	THURSTON	15N 3W 24	NE/SW
G2-*01736C	1023	SMITH C A	11/24/1950	IR,DS	150	30	15	THURSTON	15N 3W 24	S2/SE
G2-*01877C	698	KUNSELMAN H C	3/22/1951	IR,DS	50	12	4.5	THURSTON	15N 3W 24	NE/SW
G2-*00255C	403	SHAFFER R H	5/24/1946	IR,DS	75	15	10	THURSTON	15N 3W 24	SW/SE
G2-27680C		BROOKBANK INC	1/12/1990	DM	75	7		LEWIS	15N 3W 25	NE/NW
G2-21743C		JOHNSON KENNETH W	12/27/1973	IR,DS	100	28	13.5	LEWIS	15N 3W 25	
G2-20222C		HASLERUD WALTER	5/16/1972	ST,IR	50	25.2	11	LEWIS	15N 3W 25	1000
G2-*09435C	6538	DAVIS M L	5/9/1968	IR,DS	60	11	5	LEWIS	15N 3W 25	
G2-*07152C	5000	BISHOP B C	5/11/1964	IR,DS	100	25.6	10	LEWIS	15N 3W 25	NW/NE
G2-*05134C	3402	JOHNSON R R	2/19/1959	IR	70	24	12	LEWIS	15N 3W 25	N2/NE
G2-*03510C	1896	CLEMENT J L	2/15/1954	IR,DS	30	15.6	5	LEWIS	15N 3W 25	
G2-*01410C	1471	CAINVF	3/15/1950	IR	40	11	7	LEWIS	15N 3W 25	
G2-*01481C	857	MEYER H	4/21/1950	IR,DS	50	6	4	LEWIS	15N 3W 25	
G2-*01508C	638	SHULT LO	5/15/1950	IR	100	13	9	LEWIS	15N 3W 25	SE/SE
G2-*01519C	541	CALLAHAN R J	5/22/1950	IR	50	6	4	LEWIS	15N 3W 25	
G2-*00805C	668	TICKNOR E L	4/1/1941	IR,DS	70	15	10	LEWIS	15N 3W 25	NW/SW
G2-*01305C	618	JENSEN L E	12/14/1949	IR,DS	100	8	5	LEWIS	15N 3W 25	
Flying T Water	Rights									
G2-23930C		GRILL GERALD D	8/20/1975	IR.DS	50	11	5	LEWIS	15N 3W 26	SE/NE
G2-20927C		TICKNOR R C	4/12/1973	IR	500	176	88	LEWIS	15N 3W 26	SW/NE
G2-20165C	388	QUARNSTROM RICHARD	4/26/1972	IR	400	46	20	LEWIS	15N 3W 26	SE/NE
G2-20166C		QUARNSTROM R	4/26/1972	DS	300	46	20	LEWIS	15N 3W 26	SE/NE
G2-20167C	W. K. V. P.	PRATLEY HARRY L	4/26/1972	IR,DS	300	42.4	18	LEWIS	15N 3W 26	NW/SE
G2-*08765C	5903	TICKNOR R C	5/23/1967	IR	125	18	9	LEWIS	15N 3W 26	NE/SE
G2-*08766C	6282	TICKNOR R C	5/23/1967	IR	500	200	150	LEWIS	15N 3W 26	NE/NE
G2-*02019C	1156	WATSON F H	6/29/1951	IR,DS	200	30	20	LEWIS	15N 3W 26	SE/NE
G2-*02409C	1219	GORZELANCYK S J	3/24/1952	IR	200	40	20	LEWIS	15N 3W 26	NE/SE
G2-*01591C	1352	TEETER C	7/15/1950	IR	150	27	18	LEWIS	15N 3W 26	NW/SE
G2-*00684C	535	TICKNOR R B	7/1/1938	IR	128	80	40	LEWIS	15N 3W 26	SW/NE
G2-*00685C	536	TICKNOR R B	1/1/1943	IR	128	50	25	LEWIS	15N 3W 26	N2/NE

Given the high productivity of the surficial aquifer, pumping of shallow groundwater wells at the Flying T property is not expected to interfere with the operation of other wells in the area. The potential for impairment was assessed using a Theis distance drawdown analysis with the following aquifer parameters and pumping assumptions:

- Aquifer hydraulic conductivity = 310 ft/day (based on median value for the Outwash aquifer reported in Ecology, 2005).
- Aquifer thickness = 56 ft (based on average thickness of Outwash aquifer reported in Ecology, 2005).
- Aquifer Storativity = 0.25 (a typical value for sand and gravel).
- Assumed pumping rate of 500 gpm operating for 6 months (irrigation season).

The analysis indicates 3-ft of drawdown would occur after 6 months of pumping at the pumping well and less than 1-ft of drawdown would occur in the aquifer about 240 feet from the well.

The available drawdown in other wells in the area ranges from 20 to 52 feet with an average of 38 feet (based on 19 well logs in Section 26). Given the minimal drawdowns calculated above, the usage of groundwater wells at the Flying T property is not expected to interfere with the operation of other wells in the area.

Changing the point of diversion from the original site in the Chehalis River to the Pratley Well will not impair other water right holders or adversely impact the river. The well is in direct continuity with the river and has replaced the need for a pump in the river itself. The well is capable of producing 450 gpm, which will be the total quantity authorized by this certificate and SWC 2144.

Hydrogeological Setting

The Flying T property is located within the Chehalis River Valley in the Puget Sound Lowland; an elongated structural basin extending from the Cascade Range to the Olympic Mountains. During the Eocene to Miocene Epochs (~45 to 5 million years ago), tectonic processes resulting in land subsidence enabled large deposits of marine, brackish water, and non-marine sediments and volcanic rocks to accumulate in the area now occupied by the Chehalis Valley (Ecology, 2005). These rocks were later deformed during the Pliocene Epoch (5.3 to 1.6 million years ago) into the dominant southeast-northwest trending synclines and anticlines that characterize the present geologic structure of the area (Ecology, 2005).

During the Pleistocene Epoch (1.6 million to 10,000 years ago) the Puget Sound Lowland was repeatedly inundated by advancing ice from the Puget lobe of the Cordilleran ice sheet. The most recent glacial advance occurred during the Vashon Stage of the Frasier Glaciation about 15,000 years ago (Ecology, 2005). Although Vashon ice never reached the Chehalis 040-106(0208)

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Valley, melt water from the glacier deposited large quantities of coarse-grained outwash deposits on the valley floor as far south as the present Chehalis and Skookumchuck river confluence (Ecology, 2005). In many locations the outwash deposits are overlain by modern river and stream deposits (alluvium) of fine gravel, sand and silt (Ecology, 2005).

The following Hydrogeologic Units occur beneath the Flying T property (Plate A, Ecology, 2005).

- Recent Alluvium (Qa) which occurs at the land surface. This material is comprised mostly of silt, sand and fine gravel but locally includes fine-grained deposits of sand, silt, and clay. It is about 22 feet thick on average and varies from a thin veneer to 80 feet (Ecology, 2005). The Qa serves as a surficial semi-confining unit to the generally coarser grained outwash aquifer below (Qgo(g)). The Qa produces small to moderate amounts of water from sand and gravel interbeds contained within it (Ecology, 2005).
- Vashon Recessional Outwash (Qgo(g)) is the primary water supply aquifer in the area of the Chehalis River Valley where the Flying T property is located. It is composed of coarse-to-medium gravel, sand, cobbles, and occasional boulders, with localized layers of silt and clay (Ecology, 2005). It is about 56 feet thick on average and varies from 6 feet to 91 feet thick (Ecology, 2005). In the vicinity of the Flying T property, the Outwash aquifer is underlain by undifferentiated older Tertiary aged bedrock (Tbu) consisting of consolidated siltstone, sandstone, shale, and volcanic rocks.

Collectively, the unconsolidated hydrogeologic units above the Tertiary bedrock are referred to as the surficial aquifer (Ecology, 2005). Ecology's 2005 study of the Centralia-Chehalis area surficial aquifer indicates that groundwater in the shallow aquifer system is in close hydraulic connection to the rivers throughout most of the valley.

A water table map based on 2004 water level data from numerous monitoring wells in the valley, indicates the groundwater flow direction on the Flying T Ranch property is westward towards the Chehalis River (Plate C, Figure C-1, Ecology 2005). Furthermore, a September 2003 seepage study was conducted along a 6.3 mile reach of the Chehalis River along the Flying T Ranch property - from the mouth of Lincoln Creek (near the south end of the Flying T Ranch property) to USGS gaging station 12027500 (about 0.5 miles north of the Flying T Ranch property). The results of the seepage study indicated this stretch of the Chehalis River is a gaining stream (net gain of about 31 cubic-feet-per-second) - meaning groundwater discharges along this reach of the river and contributes to its baseflow (Ecology, 2005). The findings of the seepage study are further supported by in-stream piezometers installed for the Ecology study which indicated an upward vertical gradient consistent with a gaining stream (Plate C, Ecology 2005).

The Ecology 2005 study includes a geologic cross-section through the Flying T Ranch property (A to A' in Plate A, Ecology 2005). That cross section indicates the study area is underlain by about 80-ft of Outwash sand and gravel with a thin veneer of alluvial deposits, which comprise the shallow aquifer system. The shallow aquifer system is underlain by low permeable Tertiary aged bedrock consisting of low permeable sandstones, siltstones, shales, claystones, and conglomerate beds (Ecology 2005). These low permeable units retard downward movement from the shallow aquifer system.

Review of Section 26 well logs in the vicinity of the Flying T site show well depths range from 20 to 60-ft. Geologic descriptions on the well logs indicate sand and gravel with cobbles and occasional silt and clay. Static groundwater levels at time of drilling range from 7 to 21 feet below ground surface (bgs). These descriptions are consistent with the hydrogeologic interpretations presented in the USGS (1999) and Ecology (2005) groundwater studies which indicate the Chehalis River valley is underlain by a productive shallow aquifer system consisting of sand and gravel glacial outwash deposits overlain by a veneer of more recent alluvial deposits.

Supply Sources and Same Body of Public Water

Table 4 designates the location of the originally designated source of supply and the proposed new source. As has been previously discussed numerous wells have been constructed on the Flying T property. Some of these wells are clearly associated with water rights – including rights associated with the property that are not proposed to be changed and the City's currently pending Applications for Change. Other well have been constructed without specific authority, and are used to exercise previously issued water rights.

Table 4 Authorized and Current Sources

Cert #	Owner	Authorized Source	New Source
2144	мотт н	Chehalis River (1500 ft East and 1,150 ft North of SW corner of Sec 26, T.15 N., R 3W)	Pratley Well
2324	TICKNOR R B	Chehalis River (750 ft north and 1, 200 ft west of the center of Sec 26, T.15 N., R 3W)	Pratley Well
535-D	TICKNOR R B	Dug Well 1 (660 ft West and 660 ft South from NE corner of SW ¼ of NE ¼ of Sec. 25, in the SW ¼ NE ¼ of 15 N 3W, S. 26)	Walsh Well
536-D	TICKNOR R B	Dug Well 2 (660 ft east from the NE corner of SW ½ NE ¼ of Sec 25 in the N ½ NE ¼ of 15 N 3W, S. 26)	Peterson Well
G2-21004C	WALSH LEO & BEVERLY	Walsh Well (1290 ft north and 510 ft west of the south quarter corner of Sec 23 in the SE ¼ SW ¼ of 15 N 3W, S. 23)	No change proposed to POW

For the purpose of assessing impairment and addressing same body of public groundwater there are three wells that need to be considered – the Pratley well which is currently unpermitted but will be used to exercise both surface water certificates 2144 and 2324, the Peterson Well which will be used to exercise groundwater certificate 536-D which was previously exercised from a dug well, and the Walsh Well which will be used to exercise groundwater certificate 535-D which was associated with another dug well.

This specific ROE has been drafted for SWC 2324 and addresses the transfer of a water right from the Chehalis River to the Pratley Well. There is no record of construction for the Pratley well but based on the construction of the other onsite wells it can be assumed that the well is approximately 50 to 60 feet. The Pratley Well is completed in the same body of groundwater as both the Walsh and Peterson Wells which is composed of the unconsolidated hydrogeologic units above the Tertiary bedrock or the surficial aquifer. Ecology's 2005 study of the Centralia-Chehalis area surficial aquifer indicates that groundwater in the shallow aquifer system is in close hydraulic connection to the rivers throughout most of the valley, which is consistent with the high static water levels and productive nature of these wells. According water withdrawn from the Pratley Well is closely coupled with surface water flows in the Chehalis River and can be considered to be the same source.

Water Availability and Impairment of Flows

Minimum instream flows for this area were established through Chapter 173-523 WAC, the Instream Resources Protection Program for the Chehalis River Basin, (WRIA 22 and 23). The stated purpose of the rule is to retain perennial rivers and streams with instream flows and levels necessary to provide for wildlife, fish, scenic-aesthetic, environmental values, recreation, navigation, and water quality. Under the provisions of these regulations, any consumptive groundwater withdrawals from these basins with priority dates later than the closure dates stated in the regulations must not have an adverse effect on regulated surface water bodies.

The subject certificate has a priority date of 1939 and predates the instream flow rule. While Ecology does have the authority to condition water rights with instream flows during the change process, there needs to be a change in the nature of the water use such that the new use has a potential to impact flows differently. For example a change in period of use would trigger conditioning the change authorization with instream flow, as would a change in point of diversion upstream on a regulated surface water body. Since the applicant is only shifting the point of withdrawal to allow for continued irrigation of the same lands we see no requirement to add instream flow provisions which would encumber this water right unduly.

Tentative Determination

Applications for Change are governed, in part by RCW 90.03.380, which states that water rights that have been put to full beneficial use may be transferred to another place of use without loss of priority if such change can be made without detriment or injury to other existing rights.

When an Application for Change is filed, County Water Conservancy Boards are required by law to perform what is called a "tentative determination." This involves verifying that the right is in good standing and eligible to be changed ("good standing" means that Ecology can verify that water has been used within the last 5 years, that the water right has not been cancelled, and that development schedule has not lapsed and assessing the historical purposes of use.

Whole or partial relinquishment may occur when all or part of the authorized quantity has not been used for 5 years, respectively.

Good Standing:

At the heart of the City's filings is the desire to have these water rights reflect actual water use on the site. As previously mentioned these water rights are old and over time wells have been decommissioned and new wells drilled, new facilities have been constructed and property has been bought and farming consolidated.

The Department of Ecology's policy on tentative determinations of water rights (*Water Resources Program Policy for Conducting Tentative Determinations of Water Rights, Policy POL 1120*) provides that water rights may still be found to be in good standing even if not exercised exactly as issued. Changes that were made to water rights without first being authorized by Ecology are commonly called "de facto, or after-the-fact changes".

POL 1120 provides that when evaluating unauthorized changes to water rights, the Department of Ecology generally considers beneficial use to be the measure of the right, even if some attributes of the right may not be consistent with the current authorization. Use of water in a manner inconsistent with one's water right authorization may not result in forfeiture or abandonment of that right, provided such use is beneficial and not wasteful.

However, determining whether the beneficial use is associated with the right proposed for change can be difficult depending on the unauthorized changes that have occurred. For example, an unauthorized change in point of diversion may be relatively easy to investigate, whereas an unauthorized change in purpose or place of use may be very difficult to investigate. Consideration of unauthorized water use as representing beneficial use of the water right is determined on a case by case basis, through examination of the specific fact pattern associated with the water right file.

In the case of the City of Centralia's filings there are two types of Defacto Changes – place of use and point of diversion or withdrawal.

The following factors support the City's position that the rights remain in good standing:

- The City and previous owners realized that they had water rights and actively used water of the property for the originally intended purposes. We see no evidence of non-use or significant overuse with all irrigation occurring within the original bounds of the Flying T project.
- The sources are all very similar in construction such that no impairment would be expected from shifting production between the wells. All the wells are completed in the same body of public ground water which is hydrological coupled with the nearby Chehalis River. Use of the wells in lieu of direct surface water withdrawals, has no discernible impact on stream flows or other water users but serves to remove infrastructure from the river which is generally considered beneficial to fish utilization.

Beneficial Use:

There are several methods to assess water use with meter readings being the preferred and most reliable mechanism. In situations where meter records are not available applicants can attempt document water use by other means. Beneficial use includes an evaluation of the actual numbers of acres irrigated as well as the amount of water that would have been applied.

Irrigation

Water use on the property is not metered, but generally applied consistent with the water rights that provide a water duty ranging from 1 to 2 acre-feet per irrigated acre during the growing season. Power records appear inconclusive except to document service connections to the well. The City employs a full-time farm manager – Jim Webb, who is tasked with managing farming activities on the site.

After its acquisition the City used the property to grow corn for several years, but now grows mainly pasture grasses that are cut for hay. The City owns three Nelson Travelling Big Gun sprinklers – 2 with diesel motors and booster pumps, and 1 with an 8-hp gas motor. The first two are used with the Walsh and Peterson wells and the later with the Pratley well (the Pratley well is operated with a trailer mounted diesel motor and has adequate pressure without boosters).

Each gun can irrigate a swath 1,100 feet by 230 feet or approximately 6 acres, (253,000 square feet). Mr. Webb monitors water application using a small portable rain gage. He generally allows 1.5 inches to fall on the ground before moving the sprinklers to make the next pass which usually takes approximately 14 to 16 hours. He usually tries to keep two guns going at a time – weather dependent. There are approximately 30 irrigation risers on the property and irrigation generally begins in June and continues through the end of September.

Number of Acres Irrigated Water Duty and WIG Calculations

The intent of this requested change is not to increase the number of acres irrigated under any single water right but to provide a single place of use that can be irrigated under any of the water rights associated with the project.

For the purposes of evaluating water use at this site we have looked at both total project irrigation, as well as reviewed what each individual water right authorizes. We have assumed that, within this 304-acre footprint, 280 acres could reasonably be irrigated. This figure accounts for non-irrigable areas of buildings, roads, the WWTP area, and larger swathes of riparian habitat along the Chehalis River.

SWC 2324 allocates an unspecified number of acre-feet for the irrigation of 60 acres, which assumes that the water right holder would have used a reasonable amount of water to irrigate the property. For property that has clearly been irrigated, the Washington Irrigation Guide is frequently used to determine what a reasonable water duty would have been with the assumption being that farm operators would have applied as much water as needed to maintain their crop. This approach is consistent with standard Ecology methodology, as outlined in Ecology Guidance Document Guide-1210. Table 5 below provides an estimation of water use based on the irrigation of pasture using a Big Gun style sprinkler.

Table 5 – Projected Water Use under SWC 2144

# acres	Crop Requirement in inches (WIG)	Crop Irrigation Requirement	Total Irrigation Requirement	App. Efficiency (%)	% Total Evaporated	Total Consumed (af)	Return Flow (af)
60	16.28	81.40	125.20	65	10	93.92	31.31

Of these calculations, the key quantity is the Total Irrigation Requirement which reflects the amount of water that would have needed to adequately irrigate 60 acres based on climatic conditions in the Centralia area. While some of that water would have resulted in return flow, we have assumed a reasonable irrigation efficiency and we find that 125.20 acre-feet would have been put to beneficial use and is eligible to be transferred.

Consideration of Comments and Protests

No public comment or formal protests were received at either regularly scheduled Lewis County WCB meetings or at the Thurston County meeting, however members of the Thurston County Water Conservancy Board did comment that they are concerned in general about the transfer of water rights from Thurston to Lewis County and that they would like to see special attention paid to providing public notice to adjacent property owners. The Lewis County Board notes that while one of the five certificates involved in the transfer specifies a Thurston County wellsite and place of use that the intent of these transfers is to continue to irrigate the same property and no transfer of water to a different site is being proposed. Public notice was duly conducted in accordance with State regulations, but more importantly neighboring property owners will not be impacted by these modification to the City's water rights.

CONCLUSIONS

Tentative determination (validity and extent of the right)

The Board finds this water right to be in good standing and eligible to be changed in the original authorized annual quantities.

Relinquishment or abandonment concerns

The Board finds no evidence that this right has been relinquished. This right is considered to be a in good standing. We suggest however that since the rate of withdrawal was never actually increased at the point of withdrawal that the Qi associated with this water right be considered as non-additive.

Hydraulic analysis

Based on the information presented above, the Pratley Well, and Chehalis River, as well as other onsite wells targeted for modification by the City of Centralia- all share a common water body, and can be transferred without impacts to instream flows and existing water users.

Impairment

Operation of the proposed well at its targeted rate of 450 gpm will not impact other water users. This withdrawal rate is the maximum instantaneous rate as authorized by former surface water certificates 2144 and 2324.

Public Interest

No detriment to public interest could be identified during the examination of the subject application.

DECISION

Based on conclusions above, the decision of the Board is to approve the City of Centralia's Application for Change and to make the following changes to Surface Water Certificate 2144.

- The point of withdrawal shall be the Pratley Well designated on the second page of this recommendation.
- The purpose of use shall be designated as irrigation of 60 acres.
- The Qi of this water right is 270 gpm, the Qa is 125.20 acre-feet based on climatic conditions and irrigation infrastructure.
- The place of use is the footprint of the Flying T project site as described on page 2 of this recommendation.

PROVISIONS

Metering Requirements:

An approved measuring device shall be installed and maintained for each of the sources authorized by this water right in accordance with the rule "Requirements for Measuring and Reporting Water Use", Chapter 173-173 WAC. http://www.ecy.wa.gov/programs/wr/measuring/measuringhome.html

Water use data shall be recorded monthly. The maximum monthly rate of diversion/withdrawal and the monthly total volume shall be submitted to the Department of Ecology by January 31st of each calendar year.

Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the project location, and to inspect at reasonable times, records of water use, wells, diversions, measuring devices and associated distribution systems for compliance with water law.

Chapter 173-173 WAC describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition the Department of Ecology for modifications to some of the requirements

Conditions and limitations

N/A

Construction Schedule

The development schedule established by the Department of Ecology requires the filing of the Proof of Appropriation by March 1, 2015.

Signed at <u>Chehalis, Washington</u>
This **21** day of <u>**Institute** 100 day of <u>**Institute** 100 day of <u>**Institute** 100 day of 100 day of</u></u></u>

Barbara Burres, Board Representative
Lewis County Water Conservancy Board

Robert Thode, Board Representative Lewis County Water Conservancy Board

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